

III. REMARKS

Claims 9-17 are currently pending in this application. Of these, claims 9-14 and 16-17 stand rejected, and claim 15 is objected to as dependent on a rejected base claim. The Examiner stated in the Office Action, however, that claim 15 would be allowable if written in independent format.

Pursuant to the Examiner's objections, the Specification is amended to replace the Abstract and the Title of the Invention with a new Abstract and Title. The new Abstract and Title more clearly reflect that the invention is directed to methods of making supercapacitor structures. Claim 15 is slightly reworded according to the Examiner's suggestion. There is no issue of new matter.

IV. OBJECTIONS TO THE SPECIFICATION AND CLAIMS

The Specification stands objected to on the grounds that the Abstract and Title are not directed to the invention. The Abstract and Title are amended to more clearly reflect that the application is directed to methods for making supercapacitor structures. Thus, Applicant respectfully requests withdrawal of these objections.

Claim 15 stands objected to. To obviate the objection, the Examiner recommends that the claim 15 phrase "its melting point range" be replaced with -- a melting point range of the polyethylene fabric--. Claim 15 is amended as recommended, thus, withdrawal of the objection is respectfully requested.

V. REJECTIONS UNDER 35 U.S.C. § 103

Claims 9-14, 16, and 17 stand rejected under 35 U.S.C. § 103 on the grounds that they are obvious over the combination of U.S. Patent No. 5,711,988 (issued Jan. 27, 1998) to Tsai ("Tsai") and U.S. Patent No. 5,649,982 (issued Jul. 22, 1997) to Halliop ("Halliop").

Rejections over Tsai in combination with Halliop should be withdrawn because this combination does not teach or suggest all of Applicant's claim elements. That is, neither reference teaches or suggests Applicant's claim element: "laminating an activated carbon fabric to an electrically conductive positive current collector foil to produce a porous positive electrode subassembly", which is recited in all claims under examination.

To support obviousness, a reference must suggest to one of ordinary skill in the art that the claimed invention could be carried out with a reasonable likelihood of success. Both the

suggestion and the expectation of success must be founded in the prior art. In re Dow Chem. Co., 837 F.2d 469, 472 (Fed. Cir. 1988). When a combination of references is cited to establish *prima facie* obviousness of a claimed invention, the combination must teach or suggest all claim elements. MPEP 2143.03; In re Royka, 490 F.2d 981 (C.C.P.A. 1974); In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed Cir. 1995); Ex Parte Masato Ono, 2000 WL 33520305, *3.

Tsai teaches an energy storage device, and methods of fabrication therefor, comprising a plurality of cells stacked and bonded together, wherein each cell comprises a pair of electrodes (e.g., 111A and 111B, Tsai Fig. 3) and an insulative gasket interposed between the electrodes (e.g., 121 and 123, Tsai Fig. 3). When the electrodes are bonded together, a gap is formed for containing an aqueous or non-aqueous electrolyte. Tsai at column 6, lines 56-62; *Id.* at column 17, lines 6-8. Tsai's electrodes comprise an electrically conductive support material, such as metal, electrically conductive ceramic, or electrically conductive carbon. Tsai at column 11, lines 24-31. Tsai teaches that each electrode is coated with a porous, electrically conductive material, such as a metal oxide or porous electrically conductive carbon. Tsai at column 5, line 60 through column 6, line 3; *Id.* at Claim 1; *Id.* at column 26, line 36; *Id.* at column 30, line 48. Nowhere, however, does Tsai teach or suggest Applicant's claim element of activated carbon fabric.

Halliop teaches manufacture of capacitors comprising a separator member disposed between a pair of electrodes and an electrolyte. HALLIOP at column 2, lines 6-12. Each electrode comprises a metal substrate and a reactive layer laminated to the metal substrate. HALLIOP at column 2, lines 15-18. The reactive layer comprises a nonwoven web of non-activated carbon fibers impregnated with a mixture of carbon particles and non-fibrous polymeric substance (to hold the carbon particles in the nonwoven web). HALLIOP at column 2, lines 24-29. Halliop's web of non activated carbon fibers is of a surface area of less than 100 m²/g, preferably, less than 5 m²/g. HALLIOP at column 2, lines 29-31. As Halliop clearly states and as apparent from the low surface area, the carbon coating taught by Halliop is not activated. But Nowhere does Halliop teach or suggest Applicant's claim element of activated carbon fabric.

In complete contrast to either of Tsai or Halliop, Applicant teaches manufacture of a capacitor comprising laminating an activated carbon fabric to an electrically conductive negative current collector foil to produce a porous negative electrode subassembly. Such

activated carbon fabrics have surface area in the range of 1500 m²/g. Specification at page 7, lines 4-22.

In sum, Applicant respectfully requests that all rejections over the combination of Tsai with Halliup be withdrawn because the combination does not teach or suggest Applicant's activated carbon fabric, which is an element of all of Applicant's claims.

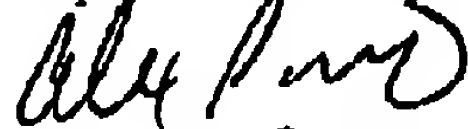
VI. FINAL REJECTION PREMATURE

Applicants respectfully request that the Examiner withdraw the finality of rejection pursuant to MPEP § 706.07(d) because final rejection was premature. That is, the Examiner's grounds for rejection in the current Office Action are new and were not necessitated by Applicant's amendments. See, MPEP § 706.07(a).

VII. CONCLUSION

In view of the above amendments and remarks, Applicant has overcome all rejections, and reconsideration is requested. No fee is required for entry of this Reply. If any fee is due, however, please charge the required fee to deposit account number 501358.

Respectfully submitted,



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